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PATENT  
Attorney Docket No.: DIVER1220-2 AM 8:4  
(09010/046001)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Jay M. Short

) Group Art Unit: Unassigned

)

) Examiner: Unassigned

Application No.: 09/214,645

)

Filed: January 8, 1999

)

CERTIFICATION UNDER 37 CFR '1.8

For: METHOD OF DNA SHUFFLING  
WITH POLYNUCLEOTIDES  
PRODUCED BY BLOCKING OR  
INTERRUPTING A SYNTHESIS OR  
AMPLIFICATION PROCESS

)

I hereby certify that the documents referred to as enclosed herein  
are being deposited with the United States Postal Service as first  
class mail on October 20, 1999, in an envelope addressed to:  
Assistant Commissioner for Patents, Washington, D.C. 20231

)

*Margaret J. Pierce*  
Margaret J. Pierce 10/20/99

Assistant Commissioner for Patents  
Washington, D.C. 20231

**TRANSMITTAL SHEET**

Sir:

Transmitted herewith for the above-identified application please find:

- (1) An Information Disclosure Statement
- (2) A Form PTO-1449;
- (3) Fifteen (15) U.S. Patent Documents;
- (4) Three (3) Foreign Patent Documents;
- (5) Fifteen (15) Other References; and
- (6) Postcard.

In re Application of:

Jay M. Short

Application No.: 09/214,645

Filed: January 8, 1999

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PATENT  
Attorney Docket No.: DIVER1220-3  
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No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 07-1895. A duplicate copy of this Transmittal Letter is attached.

Respectfully submitted,



Lisa A. Haile, Ph.D.

Registration No. 38,347

Telephone: (858) 677-1456

Facsimile: (858) 677-1465

Dated: October 20, 1999

GRAY CARY WARE & FREIDENRICH LLP  
4365 Executive Drive, Suite 1600  
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PATENT  
Attorney Docket No.: DIVER1220-2  
(09010/046001)

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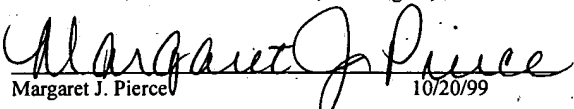
For: METHOD OF DNA SHUFFLING  
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) Margaret J. Pierce 10/20/99

Assistant Commissioner for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with 37 C.F.R. 1.97, enclosed are references relating to the above-identified application. For the convenience of the Examiner, these references are listed on the attached Form PTO-1449 and a copy of each is enclosed herewith.

It is respectfully requested that these references be considered in the examination of this application and their consideration be made of written record in the application file.

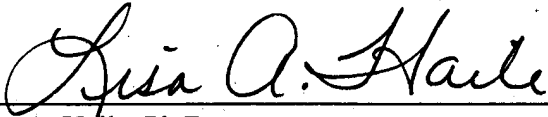
In re Application of:  
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Dated: October 20, 1999

  
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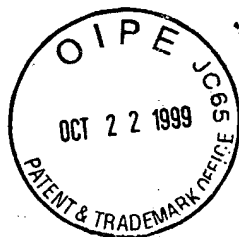
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 Attorney Docket No.: DIVER1220-2  
 (09010/046001)

### U.S. PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
		4683202	7/28/87				
		4800159	01/24/89				
		4965188	10/23/90				
		5176995	01/05/93				
		5187083	02/16/93				
		5234824	08/10/93				
		5333675	08/02/94				
		5354656	10/11/94				
		5605793	02/25/97	Stemmer			
		5645988	07/08/97				
		5811238	09/22/98	Stemmer			
		5814476	09/29/98	Kauffman			
		5817483	10/06/98	Kauffman			
		5830721	11/03/98	Stemmer			
		5837458	11/17/98	Minshull			

### FOREIGN PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)
		WO91/16427	10/31/91	PCT			
		WO95/22625	08/24/95	PCT			
		WO97/35957	10/02/97	PCT			



**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)**

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	Cadwell, "Randomization of Genes by PCR Mutagenesis," <i>Research</i> , 2:28-33 ©1992 by Cold Spring Harbor Laboratory
	Hermes, "Searching sequence space by definably random mutagenesis: Improving the catalytic potency of an enzyme," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 87, pp. 696-700
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	Marks, "By-passing immunization: building high affinity human antibodies by chain shuffling," <i>Bio/Technology</i> , Vol. 10, pp. 779-783
	Stemmer, "Selection of an active single chain Fv antibody from a protein linker library prepared by enzymatic inverse PCR," <i>Biotechniques</i> , Vol. 14, No. 2, pp. 256-265
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